

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Theodore Magee on 6/25/2009. The application has been amended as follows:

Claims 12 and 14 have been amended as follows:

12. A computer storage medium storing computer-executable instructions for performing steps comprising:

identifying log-magnitude frequency values for each of a plurality of frames that represent a noisy speech signal;

applying the log-magnitude frequency values that represent frames of the noisy speech signal to a Finite Impulse Response filter having a set of filter parameters wherein one of the filter parameters of the set of filter parameters differs from another filter parameter of the set of filter parameters to provide time-based filtering and to produce filtered values representing noisy speech;

determining a posterior probability based on the filtered values, wherein a frequency-based transform is not applied before the filtered values are used to

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determine the posterior probability and wherein the posterior probability provides the probability of log-magnitude frequency values for a clean speech signal given the filtered values;

using the posterior probability to estimate a log-magnitude frequency value for a frame of a clean speech signal; and

using the log-magnitude frequency value for the frame of the clean speech signal to produce an output clean speech signal.

14. The computer storage medium of claim 12 further comprising taking the exponent of the log-magnitude frequency values for frames of the clean speech signal to form magnitude values.

Allowable Subject Matter

2. Claims 1, 3-6, and 9-19 are allowed over the prior arts of record. The following is an examiner's statement of reasons for allowance: The prior arts of record fail to specifically disclose the processor filtering the log-magnitude frequency values of the noisy speech signal to smooth the log-magnitude frequency values over time to form filtered noisy values by applying the log magnitude frequency values of the noisy speech signal to a Finite Impulse Responsive Filter having a set of filter parameters wherein at least one of the filter parameters of the set of filter parameters differs from another of the filter parameters of the set of filter parameters; and determining posterior probability based on the filtered values. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify the prior arts of record in

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order derive the claimed invention. Therefore, claims 1, 3-6, and 9-19 are allowed over the prior arts of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN X. VO whose telephone number is (571)272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huyen X Vo/
Primary Examiner, Art Unit 2626

6/29/2009
